

## **REMARKS**

Claims 4, 7, 13, 14 and 17 have been amended. Claims 1-29 remain pending. Reconsideration is respectfully requested in light of the following remarks.

### **Objection to the Specification:**

The Examiner objected to the Title as not being descriptive. The Title has been amended.

The Examiner objected to the Abstract of the Disclosure for including the term "Fig 10." However, the Abstract of the Disclosure as originally filed did not include the term "Fig 10." Apparently the U.K. priority application was mistakenly copied in the Patent Office file as the examination copy of the application. The text of the Abstract of the Disclosure as originally filed is provided in the Amendment section above.

### **Objection to the Claims:**

The Office Action objected to claims 4-16 and 22-28 under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. However, the claims as originally filed did not include any multiple dependencies. The text of the originally filed claims (except as currently amended) is provided in the Amendment section above. Applicants also note that the application was originally filed with 29 claims. However, the Examiner has only listed 28 claims, which again corresponds to the U.K. priority application. Applicants note that the filing receipt for the present application indicates that the application was originally received in the USPTO with 29 claims, which corresponds to Applicants' records. Apparently, at some later point, the U.K. priority application was mistakenly copied in the Patent Office file as the examination copy of the application.



**Section 103(a) Rejection:**

The Office Action rejected claims 1-2 and 17-21 under 35 U.S.C. § 103(a) as being unpatentable over Shipman (U.S. Patent 5,881,282). Applicants respectfully traverse this rejection in light of the following remarks.

In particular, claim 1 recites a resource access control mechanism which includes an address translation mechanism and a trap handler. The address translation mechanism is operable to map received addresses to resources. The trap handler handles a trap in the event of a faulty resource access being detected and is operable to instigate a diversion for subsequent access attempts to the resource. Responsive to the instigation of the diversion by the trap handler, the address translation mechanism effects the diversion for subsequent attempts to access the resource.

Accordingly, following the detection of a faulty resource access, the instigation of a diversion by the trap handler removes the need for the trap handler to handle any traps associated with subsequent accesses to the faulty resource. Instead, the address translation mechanism effects the diversion instigated by the trap handler, for example, by mapping a received address (corresponding to the faulty resource) to an alternative resource address. As is described, for example, on page 16 from lines 6 to 12 of the application, this approach has the advantage that no traps need to be taken for the subsequent resource access attempts.

Shipman relates to the initialization of add-on devices. An initialization service 12 scans for option ROMs of add-on devices at power on/reset. The initialization service 12 comprises logic for creating the execution context of all initialization tasks 20 found in the option ROMs of the add-on devices (see column 2, lines 55 to 65). Interrupts and exceptions arisen in the course of the execution of the initialization tasks 20 are re-directed to the virtual mode execution monitor 28 for handling (see column 3, lines 1 to 3). In the Office Action, the Examiner refers to column 4, lines 11 to 24 of Shipman.

This passage describes some examples of how the virtual mode execution monitor 28 handles such interrupts/exceptions.

With regard to the example described at lines 17 to 24 of column 4, the described virtualization of an impermissible operation does not involve any kind of diversion for a resource access request. Instead, Shipman only teaches that the initialization task 20 can be misled with a virtualized reply of no data.

According to the example described at lines 11 to 16 of column 4, the virtual mode execution monitor 28 can re-direct a write to a protected portion of memory to an unprotected area of memory, and maintain a re-mapping for the initialization task 20. It is important to note that it is the virtual mode execution monitor 28 which performs the re-direction and which maintains the re-mapping. This would mean that subsequent interrupts/exceptions must still be re-directed to the virtual mode execution monitor 28 for handling. Accordingly, interrupt/exception handling must be performed by the virtual mode execution monitor 28 each and every time a particular interrupt/exception is triggered. This is also the case for the virtualization process described at lines 17 to 24 of column 4.

Accordingly, there is no teaching or suggestion in Shipman of an address translation mechanism which is responsive to instigation of a diversion by a trap handler to affect the diversion for subsequent attempts to access a resource. Therefore, the rejection is not supported by the teachings of the cited art. As such, Applicants respectfully request removal of the 35 U.S.C. § 103(a) rejections.

Similar arguments apply to the other independent claims. Applicants also assert that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Applicants also assert that since claims 4-16 and 22-29 were properly filed without any multiple dependencies, these claims should have been substantively examined. Accordingly, any future rejection of these claims would constitute a new ground of rejection not necessitated by amendment, and thus should not be made final.

**Allowable Subject Matter:**

Claim 3 was objected to as being dependent upon a rejected base claim but otherwise allowable if rewritten in independent form. Since, as shown above, claim 3 depends from a patentably distinct base claim, Applicants assert that claim 3 is allowable in its present form.





### CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicants hereby petition for such extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-81800/RCK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Fee Authorization Form authorizing a deposit account debit in the amount of \$  
for fees (      ).
- ☐ Other:

Respectfully submitted,

Robert C. Kowert  
Reg. No. 39,255  
ATTORNEY FOR APPLICANT(S)

Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C.  
P.O. Box 398  
Austin, TX 78767-0398  
Phone: (512) 853-8850

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